

**AD/TD Joint Projects Meeting**  
**Wednesday, 19 January 2005, 1:15 PM**  
**Club 157, Trailer 157**

**Present:** Dave Harding (scribe), Peter Garbincius, Hank Glass, Gregg Kobliska, Jeff Spalding, Rich Stanek, John Zweibohmer

**Review of Tasks and Priorities**

Linac Power amplifier tubes (#285)

The designer from PPD who is working on this is Brain Ellison. (Tom Sperry is working on BTev.) Paul Czarapata and others are at the tube vendor. The vendor is being offered a contract for 12 tubes over two years beyond the normal rebuilding and new construction rate of about six per year. They claim to have the capability but not the capacity to increase the production rate. This is claimed to be a profitable line for the company, an important factor as they try to sell the division. The Fermilab task force is going to recommend a longer range strategy in a report due by early summer.

Booster kickers (#305, #364)

The vendor has still not responded with a quote on the ceramic beam tubes. We will order them when we get the numbers. The count is ten installed plus spares, then double that for the yield in the brazing process, for a total of 30 bare tubes. We have a few minor modifications to the current design for improved reliability, based on experience, and tightened tolerances on parts, based on recent assembly experience. In particular, in the quantities we plan to order the ferrite vendor will hold the previous price in spite of our tightening some tolerances from 0.030", or even 0.060", to 0.005".

OrBump (#203)

Jim Lackey was expecting to start magnetic measurements yesterday. The current schedule shows completion in May 2005. Based on concern about promptly returning to operation after installation, Booster is reluctant to install the system before the main 2005 shutdown.

Booster trim package (#291)

The mechanical design work has started.

Main Injector/Tevatron Lambertson spares (#181)

The first spare has been pumped down and back-filled with nitrogen, and Receiving has been called to move it to MI-60 service building for storage. The inner core of the second magnet is ready for its deep bake-out. Coil winding on the third and fourth is complete.

Debuncher extraction kicker (#225)

There have been two productive meetings in the last two weeks. It was agreed that any modifications to the ferrite core would produce unacceptable changes in the inductance and impedance and require significant time to tune the magnet. This would also be too risky to attempt during a shutdown. In the case of core modifications, we would then start with new construction. An excellent magnet could probably be produced for the 2006 shutdown, but this is thought to be too late to have sufficient impact. There are some ideas for modifications to the filed-shaping plate that might produce an acceptable performance while providing room for the enlarged beam tube. These are being modeled

and a series of tests on the spare magnet module are planned. The goal is a decision in mid-February. Procurement of the beam tubes has been initiated, but a decision to actually place the order will wait for an evaluation of the calculations and tests.

#### LEP corrector coils (#274, #351)

Production the LEP corrector coils is ahead of schedule. All coils have been wound. All horizontal coils have been potted and half the verticals. Another batch of verticals should pot this week.

#### WQB (#295)

The winding tooling was due yesterday, so we can hope to start winding next week. The beam tube looks like the critical path.

#### BLASTMAN (#297)

There have been two meetings in the last two weeks, first outlining the data that MTF has and second discussing moving selected Debuncher data to the AD database. Next week AD will present their needs in general terms.

#### Separators (#265, #337, #338, #377, #243)

The expected work plan for FY05 has not been discussed and released. AD expects changes in budget and schedule once that plan is accepted. TD needs to plan for staffing the facility over the next several years as work continues in support of Run II and BTeV after that. With one senior technician retiring and two contract techs expected to be forced out in favor of transfers from elsewhere in the Lab, serious planning is needed.

#### Bypass storage

TD is storing about half a dozen Tevatron bypasses in Magnet Storage Building. A couple of years ago there was an agreement to consolidate storage of these devices with those under AD control, but this seems to have fallen through. TD would like to get rid of them. Dave Augustine reports that he has no room for them, but is lobbying to get control of some PPD space that would be suitable.

### **Proton Plan WBS**

Jeff reports that the Proton Plan will likely be designated project 22/32/42/52, as R2LU is 26/36/46/56. A WBS is being circulated. TD would have one task each for ORBUMP magnets, WQB, Booster corrector design and prototype, and Booster corrector production. We need a small meeting or two next week to work out the resource-loaded schedule for these tasks. Dave will propose some times to Jeff when he gets back to his calendar.

**Next Meeting: Wednesday, 2 February 2005, 1:15 PM  
Club 157 in Trailer 157**